



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/079,932	02/19/2002	Stephane Kasriel	D33-023-01-US	6509
54092	7590	09/25/2006	EXAMINER	
NORTH OAKS PATENT AGENCY 45 ISLAND ROAD NORTH OAKS, MN 55127			DENNISON, JERRY B	
			ART UNIT	PAPER NUMBER
			2143	

DATE MAILED: 09/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/079,932	Applicant(s) KASRIEL, STEPHANE	
	Examiner J. Bret Dennison	Art Unit 2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-13, 19 and 20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13, 19 and 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/3 8/17/ 8/29</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This Action is in response to Application Number 10/079,932 received on 03 July 2006.
2. Claims 1-13, 19, and 20 are presented for examination.

#### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03 July 2006 has been entered.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Malkin et al. (U.S. 6,085,193).

3. Regarding claims 1 and 8, Malkin disclosed a method of predictive predownloading of next objects with delta encoding, including steps of:
- receiving from a client a request for an object (Malkin, col. 4, lines 25-35);
  - updating a prediction map in response to the request and a referring page that indicates an object just previously requested by the client, the prediction map associating the requested object with next objects likely to be requested (Malkin, col. 7, lines 19-25, col. 8, lines 40-50, col. 10, lines 29-50, Malkin disclosed a linked list of next access records);
  - maintaining a stored set of templates for the requested object (Malkin, col. 6, lines 3-15, 49-55, col. 7, line 62 through col. 8, lines 22);
  - calculating delta information for one particular template of the stored set of templates (Malkin, col. 8, lines 38-50); and
  - sending to a client (i) a hint that includes a suggestion to download a next object based on the prediction map and (ii) delta information for the requested object that specifies the particular template (Malkin, col. 8, lines 38-50, col. 9, lines 5-10, col. 11, lines 1-12).

Art Unit: 2143

4. Regarding claim 2, Malkin disclosed the limitations, substantially as claimed, as described in claims 1 and 8, including wherein the requested object comprises a web page (Malkin, col. 4, lines 50-55).

5. Regarding claim 3, Malkin disclosed the limitations, substantially as claimed, as described in claims 1 and 8, including wherein the hint comprises information to be stored in a client cache (Malkin, col. 2, lines 8-13).

6. Regarding claim 4, Malkin disclosed the limitations, substantially as claimed, as described in claims 1 and 8, including wherein the sending step comprises sending to the client the next object (Malkin, col. 8, lines 38-50, col. 9, lines 5-10, col. 11, lines 1-12, Malkin disclosed predictive pre-fetching of objects, in order to send the objects to the client before the client requests the object).

7. Regarding claim 5, Malkin disclosed the limitations, substantially as claimed, as described in claims 1 and 8, including wherein the maintaining step comprises conditionally building a new template when the delta information exceeds a selected threshold (Malkin, col. 14, line 48 through col.15, line 15).

8. Claims 1 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Becker et al. (U.S. Patent Number 5,878,223).

9. Regarding claims 1 and 8, Becker disclosed a method of predictive predownloading of next objects with delta encoding, including steps of:

- receiving from a client a request for an object (Becker, col. 2, lines 30-36);
- updating a prediction map in response to the request and a referring page that indicates an object just previously requested by the client, the prediction map associating the requested object with next objects likely to be requested (Becker, col. 2, lines 36-43, col. 8, lines 1-20);
- maintaining a stored set of templates for the requested object (Becker, col. 2, lines 44-50, Becker discloses the server containing the next-requested web pages, therefore also including the templates of the web pages);
- calculating delta information for one particular template of the stored set of templates (Becker, col. 9, lines 15-20); and
- sending to a client (i) a hint that includes a suggestion to download a next object based on the prediction map and (ii) delta information for the requested object that specifies the particular template (Becker, col. 7, line 65-through col. 8, line 20, col. 9, lines 35-45, Becker disclosed calculating probabilities for each possible selection and choosing the highest and sending to the client).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 2143

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mogul (U.S. Patent Number 5,802,292) hereinafter referred to by Mogul'292 in view of Mogul (HTTP Delta Clusters and Templates, Publication date: 24 August 2000) hereinafter referred to by Mogul.

11. Regarding claims 1, 4, 8, and 11, Mogul'292 disclosed a method of predictive predownloading of next objects with delta encoding, including steps of:

receiving from a client a request for an object (Mogul'292, col. 4, lines 30-33);

updating a prediction map in response to the request and a referring page that indicates an object just previously requested by the client, the prediction map associating the requested object with next objects likely to be requested (Mogul'292, col. 4, lines 34-40);

maintaining a stored set of templates for the requested object (Mogul'292, col. 3, lines 1-20, Mogul disclosed the server systems and proxy systems including storage of the web pages/objects); and

sending to a client (i) a hint that includes a suggestion to download a next object based on the prediction map (Mogul'292, col. 3, lines 50-56).

However, Mogul'292 does not explicitly state:

calculating delta information for one particular template of the stored set of templates; and

sending to a client (ii) delta information for the requested object that specifies the particular template.

In an analogous art, Mogul disclosed a server that computes the delta between current instance of a resource and a separately-identified template resource and the server sends a 'hint' to inform the client of the location of the template resource (Mogul, page 9).

Mogul'292 and Mogul are analogous art because both teachings involve reducing retrieval latency when a user requests web pages, both with the use of caching.

Therefore it would have been obvious to one in the ordinary skill in the art at the time of the invention to incorporate the teaching of Mogul into Mogul'292 to produce a server that can predict the next web page to be visited based on the client request and transferring only the data needed by the client to produce the page to the user for the benefit of reducing retrieval latency (Mogul'292, col. 2, lines 15-20 and 40-45).

12. Regarding claim 2, Mogul'292 and Mogul disclose the limitations, substantially as claimed, as described in claims 1 and 8, including wherein the requested object comprises a web page (Mogul'292, col. 1, lines 60-67).

13. Regarding claim 3, Mogul'292 and Mogul disclose the limitations, substantially as claimed, as described in claims 1 and 8, including wherein the hint comprises information to be stored in a client cache (Mogul'292, col. 2, lines 1-20, col. 3, lines 15-23);



14. Regarding claim 5, Mogul'292 and Mogul disclose the limitations, substantially as claimed, as described in claims 1 and 8, including wherein the maintaining step comprises conditionally building a new template when the delta information exceeds a selected threshold. (Mogul, pages 3 and 9, Mogul teaches calculating new delta information and building a new template resource after an expired timestamp);

15. Regarding claim 6, Mogul'292 and Mogul disclose the limitations, substantially as claimed, as described in claims 1 and 8, including wherein the maintaining step comprises determining a number of changes made to a set of selected objects; and conditionally building a new template when the number of changes exceeds a selected threshold (Mogul'292, col. 4, lines 5-15, Mogul teaches determining thresholds and heuristics on changes in objects and prefetching an object based on a number of criteria including modifications and thresholds).

16. Regarding claims 7 and 9, Mogul'292 and Mogul disclose the limitations, substantially as claimed, as described in claims 6 and 8, including wherein said selected said selected threshold includes a reference to object age, object size, object type and operator selection (Mogul'292, col. 4, lines 5-15, Mogul teaches object modification timestamp).

17. Regarding claim 10, Mogul'292 and Mogul disclose the limitations, substantially as claimed, as described in claim 8, including wherein the template builder builds the at least one template of the set of next web pages (Mogul, page 9).

18. Regarding claim 12, Mogul'292 and Mogul disclose the limitations, substantially as claimed, as described in claim 11, including wherein the hint includes URLs of templates for likely next pages (Mogul, page 9, Mogul teaches sending users hints to inform the client of the URI of the template resource).

19. Regarding claims 13, Mogul'292 and Mogul disclose the limitations, substantially as claimed, as described in claim 11, including wherein said hint includes information for storing said template in said a client cache (Mogul, page 9, Mogul teaches the client storing static parts of the website in the client's cache).

20. Claims 19 and 20 are rejected as being substantially similar to claims 1 and 4. As the details of claim 11 are also included in claim 1, claims 11, 19, and 20 are rejected under the same prior art used for claims 1 and 4, as being substantially similar claims.

### **Response to Amendment**

Applicant's arguments and amendments filed on 03 July 2006 have been carefully considered but they are not deemed fully persuasive.

Applicant states "Delta information is defined in the present patent application specification in paragraph [0017] as a selected portion of a web page that may vary between instances of the web page" [see Applicant's Response, page 5].

Therefore, a reasonable definition of delta information is a selected portion of a web page. The rest of the definition is not required.

Applicant's arguments include the failure of previously applied art to expressly disclose the teachings of "the use of information about the request and a referring page that indicates an object just previously requested by the client" and "predictive caching with delta encoding" and "creating predictions page as specified in independent claims 1 and 8 [see Applicant's Response, page 5, 6].

Examiner respectfully disagrees.

Malkin disclosed updating a statistics table and generating prefetch hint information. The statistics table stores information on requested information by the clients and potential prefetch information associated with the requested information. The prefetch hint information is based on actual reference behavior of clients (Malkin, col. 7, lines 15-24). Based on what is requested by the client, the statistics table is queried to determine prefetch hint information based on what other clients have requested from that page. The prefetch hint information is then "piggy-backed" with the requested information (Malkin, col. 8, lines 38-50).

Art Unit: 2143

Becker disclosed for every possible current page, a probability calculation is maintained for every possible next-to-be selected page. Every time a page is actually selected, the probability table is updated (Becker, col. 9, lines 15-25). Therefore the hint/prediction is based on previous requests, and probability values from the probability table of all possible "next-to-be selected pages".

Applicant's arguments include the failure of Mogul '292 and Mogul to expressly disclose the teachings of "creating predictions based on (1) information about the request and (2) a referring page that indicates an object just previously requested by the client" and "sending a client both (1) a hint for the next object to download and (2) delta information for the requested object [see Applicant's Response, page 7].

Examiner respectfully disagrees.

It is evident from the mappings found in the above rejection that the combination of Mogul'292 and Mogul disclosed this teaching. Mogul'292 clearly disclosed creating predictions based on information about the request and a referring page that indicates an object just previously requested, as shown in Mogul'292 (Mogul'292, Abstract, col. 4, lines 30-40). Mogul'292 also disclosed predicting the client system's one or more likely next retrieval requests, assigning predicted retrieval probabilities and transmitting these predictions (Mogul'292, col. 3, lines 49-55). Mogul the client retrieving a 'hint' to inform a client of the URI of the template resource, as well as retrieving a delta between the template and the Request-URI).

As explained in the previous action, Examiner does not see in the claims any mention of delta encoding or any details as to what delta encoding is. "Calculating delta information" and "sending delta information" is broad language, in which any calculation information (i.e. the probabilities of Becker, col. 9, lines 35-42, the frequency of Malkin, col. 11, lines 1-10) would teach.

Furthermore, as it is Applicant's right to continue to claim as broadly as possible their invention, it is also the Examiner's right to continue to interpret the claim language as broadly as possible. It is the Examiner's position that the detailed functionality that allows for Applicant's invention to overcome the prior art used in the rejection, fails to differentiate in detail how these features are unique. As it is extremely well known in the networking art as already shown by art used in the above rejection as well as other prior arts of records disclosed predictive predownloading of web pages is taught as well as other claimed features of Applicant's invention. By the rejection above, the applicant must submit amendments to the claims in order to distinguish over the prior art use in the rejection that discloses different features of Applicant's claimed invention.

It is the Examiner's position that Applicant has not yet submitted claims drawn to limitations, which define the operation and apparatus of Applicant's disclosed invention in manner, which distinguishes over the prior art.

Failure for Applicant to significantly narrow definition/scope of the claims and supply arguments commensurate in scope with the claims implies the Applicant intends broad interpretation be given to the claims. The Examiner has interpreted the claims

Art Unit: 2143

with scope parallel to the Applicant in the response and reiterates the need for the Applicant to more clearly and distinctly define the claimed invention.

### ***Conclusion***

**Examiner's Note:** Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Bret Dennison whose telephone number is (571) 272-3910. The examiner can normally be reached on M-F 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2143

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



J.B. D.  
Patent Examiner  
Art Unit 2143



JEFFREY PWU  
PRIMARY EXAMINER